CLAIMS

1. A method comprising:

initiating a channel locking procedure by a broadband demodulator;

applying a predetermined criterion to interim operational data resulting from an act of said channel locking procedure; and

determining whether to continue said channel locking procedure, based on said predetermined criterion.

2. The method of claim 1, wherein said act of said channel locking procedure is to determine a symbol rate of an incoming channel.

3. The method of claim 1, wherein said act of said channel locking procedure is to determine a signal type of an incoming channel.

4. The method of claim 1, wherein applying said criterion comprises determining from said interim data whether a symbol rate of a channel matches a symbol rate required by said broadband demodulator.

5. The method of claim 1, wherein applying said criterion comprises determining from said interim data whether a signal symbol spectrum picture of a channel matches a signal spectrum picture required by said broadband demodulator.

6. The method of claim 1, wherein the determining whether to continue said channel locking procedure includes using one or more selected Quadrature Amplitude Modulation checks.

7. The method of claim 1, further comprising initiating at least one channel locking procedure retry.

8. The method of claim 7, further comprising counting a number of channel locking procedure retries.

9. The method of claim 8, wherein if said number of channel locking attempts is less than a pre-selected threshold, initiating a retry command.

10. The method of claim 8, wherein if said number of channel locking attempts is greater than a selected threshold, initiating a channel locking procedure using an alternative frequency.

11. The method of claim 1, further comprising completing said channel lock procedure if said predetermined criterion for continuing said channel lock procedure has been met.

12. An apparatus comprising:

a broadband demodulator to perform a channel locking procedure, said demodulator having a channel lock sensing mechanism to determine whether to continue said channel locking procedure by applying a predetermined criterion to interim channel locking data resulting from an act of said channel locking procedure.

13. The apparatus of claim 12, wherein a controller manages operation of said lock sensing mechanism.

14. The apparatus of claim 12, further comprising a memory to store instructions to enable operation of said lock sense mechanism. .

15. A cable modem device, comprising:

a controller to determine whether to continue locking onto an incoming channel by applying a predetermined criterion to interim operational data resulting from an act of said channel locking procedure; and

a demodulator to demodulate a signal received over said incoming channel.

16. The device of claim 15, wherein said controller determines from said interim data of said channel-locking procedure whether a symbol rate of a channel matches a symbol rate required by the cable modem device.

17. The device of claim 15, wherein said controller determines from said interim data of said channel-locking procedure whether a signal

spectrum picture of a channel matches a signal spectrum picture required by the cable modem device.

18. An article comprising a storage medium having stored thereon instructions that, when executed by a processing platform, result in performing a channel locking procedure by a broadband demodulator; applying a predetermined criterion to interim channel locking data of said channel-locking procedure, and determining whether to continue said channel locking procedure, based on said predetermined criterion.

19. The article of claim 18, wherein applying said criterion comprises determining whether a symbol rate of a channel matches a symbol rate required by a broadband demodulator.

20. The article of claim 18, wherein applying said criterion comprises determining whether a signal symbol spectrum picture of a channel matches a signal spectrum picture required by a broadband demodulator.

21. The article of claim 18, wherein the instructions further result in completing said channel lock procedure if said predetermined criterion has been met.

22. A cable network communication system:

a cable modem termination system to broadcast signals; and

a cable modem having a demodulator adapted to screen said broadcast signals during a channel locking procedure.

23. The cable network communication system of claim 22, wherein said cable modem comprises a controller to execute instructions to screen said broadcast signals during said channel locking procedure.

24. The cable network communication system of claim 22, wherein said cable modem comprises a memory unit to store instructions to screen said broadcast signals during said channel locking procedure.

25. The cable network communication system of claim 22, wherein said cable modem rejects unwanted broadcast signals before said locking procedure is completed.